

# Clarke<sup>®</sup>

## METALWORKER



BENCH GRINDER WITH LIGHT AND  
WIRE WHEEL

MODEL NO: CBG8370LW

PART NO: 6500533

OPERATION & MAINTENANCE  
INSTRUCTIONS



LS0514

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## **INTRODUCTION**

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Thank you for purchasing this CLARKE Bench Grinder with light and wire wheel. Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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## **GUARANTEE**

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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## **SPECIFICATIONS**

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Model Number	CBG8370LW
Part Number	6500533
Rated Voltage	230V~50Hz
Rated Input	370 W
No Load Speed	2850 RPM (+/- 5%)
Sound Pressure Level LpA	84 db
Sound Power Level LWA	94 db
Uncertainty Factor K	3
Weight	14.85 kg
Abrasive wheels supplied	Coarse (36 Grit), Wire Wheel
Wheel dimensions	Diameter (200mm) Thickness (20 mm) Bore (15.88 mm)

# POWER TOOL SAFETY WARNINGS

## 1) WORK AREA

1. **Keep the work area clean and well lit.** Cluttered and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

## 2) ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use adaptor plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce the risk of electric shock.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
3. **Do not abuse the cable.** Never use it for carrying, pulling or unplugging the power tool. **Keep the cable away from heat, oil, sharp edges or moving parts.** Damaged or entangled cables increase the risk of electric shock.
4. **When operating a power tool outdoors, use an extension cable suitable for outdoor use.** Use of a cable suitable for outdoor use reduces the risk of electric shock.
5. **If operating the power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**

## 3) PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in personal injury.
2. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Avoid accidental starting.** Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
4. **Remove any wrench before turning the power tool on.** A wrench left attached to a rotating part may result in personal injury.
5. **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly.** Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

## **4) POWER TOOL USE AND CARE**

- 1. Do not force the power tool.** Use the correct accessories for your application. The correct power tool will do the job better and safer at the rate which it was designed.
- 2. Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 3. Disconnect the plug from the power source before changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- 4. Store idle tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
- 5. Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- 6. Use the power tool and accessories in accordance with these instructions and in the manner intended, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.
7. The performance of this tool may vary, depending upon variations in line voltage. Extension cable usage may also affect performance.

## **5) SERVICE**

- 1. Have your power tool serviced by qualified service personnel using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

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## **BENCH GRINDER SAFETY WARNINGS**

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1. Hold the hand tool or blade being sharpened firmly to prevent loss of control.
2. NEVER install an abrasive flap wheel or sanding disc on this grinder.
3. Always replace a cracked grinding wheel immediately.
4. Never use damaged or incorrect grindstones. The stone and retaining bolt were specially designed for your grinder, for optimum performance and safety of operation. Inspect the condition of the grinding stone before use and do not use if any damage is noticed.
5. Do not use aluminium oxide wheels when grinding non-ferrous metals such as aluminium or brass. Use silicon carbide wheels (not included) for grinding non-ferrous metals.
6. Always use the tool rests to steady the workpiece. If the tool attachments are not used, the torque of the spinning grinding/polishing wheel may pull the workpiece from your hands.
7. Never leave the grinder unattended when it is connected to an electrical power supply. Switch off the machine and unplug it before leaving.

8. ALWAYS check for damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine if it would operate properly and perform its intended function. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. A part that is damaged should be properly repaired or replaced at an authorised service centre. Following this rule will reduce the risk of electric shock, fire or serious injury.
9. Eye protection manufactured to the current European safety standards should be worn when operating grinding equipment.
10. Eye guards supplied with the machine must be used at all times.

**Note: Bench grinders used in industrial environments may be subject to the requirements of The Provision and Use of Work Equipment regulations 1992 (particularly regarding the training requirement of The Abrasive Wheels Regulations 1970), or other legislation. If in doubt seek advice.**

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## SAFETY SYMBOLS

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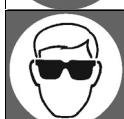
Read Instruction Manual Before Use



This Machine Is Not Suitable For Hand Held Use



Not Permitted For Wet Grinding



Wear Eye Protection



Wear Ear Defenders

# ELECTRICAL CONNECTIONS



**WARNING! Read these electrical safety instructions thoroughly before connecting the product to the mains supply.**

Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.

This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

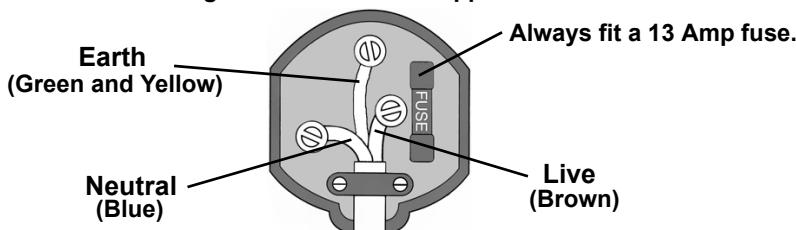


**WARNING! The wires in the power cable of this product are coloured in accordance with the following code:**  
**Blue = Neutral    Brown = Live    Yellow and Green = Earth**

If the colours of the wires in the power cable of this product do not correspond with the markings on the terminals of your plug, proceed as follows.

- The wire which is coloured **Blue** must be connected to the terminal which is marked **N** or coloured **Black**.
- The wire which is coloured **Brown** must be connected to the terminal which is marked **L** or coloured **Red**.
- The wire which is coloured **Yellow and Green** must be connected to the terminal which is marked **E** or  $\frac{1}{3}$  or coloured **Green**.

**Plug must be BS1363/A approved.**



**Ensure that the outer sheath of the cable is firmly held by the clamp**

We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD)

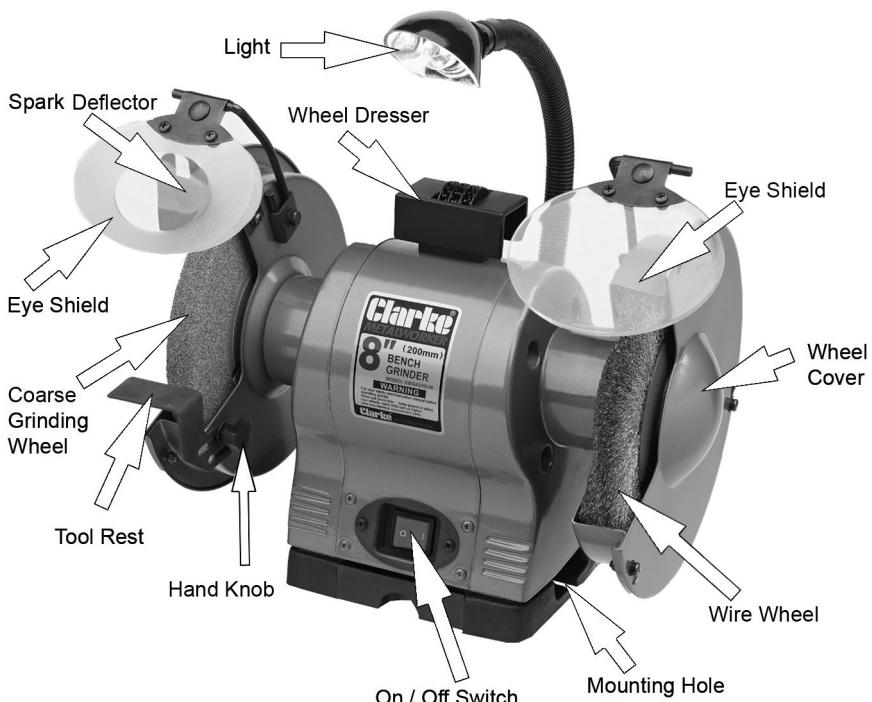
If in any doubt, consult a qualified electrician. DO NOT attempt any repairs yourself.

## CARTON CONTENTS

The following items should be supplied in the carton. If any parts are missing or damaged, please contact the Clarke dealer where you purchased the bench grinder.

1 x Bench Grinder Assembly with Lamp (1 grinding wheel + 1 wire wheel attached)
2 x Eye Shields (1 with Built-in Magnifying Lens)
2 x Eye Shield Arms with bolts and washers
2 x Eye Shield Brackets
1 x Hand Knob with washer
1 x Spark Deflector with bolts and washers
1 x Tool Rest with screws and washers
1 x Wheel Dresser

## PART IDENTIFICATION



# ENVIRONMENTAL RECYCLING POLICY



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

## BEFORE USE

### MOUNTING THE GRINDER ON A WORKBENCH

**NOTE:** We highly recommend that you bolt this bench grinder securely to a workbench to gain maximum stability for your machine.

1. Using the base of the bench grinder as a template, mark the bench through the holes in the casting.
2. Bolt the bench grinder to the bench with bolts, washers and nuts (not supplied).
3. To reduce vibration, mount the bench grinder on a vibration absorbing mat.



### INSTALLING THE TOOL REST

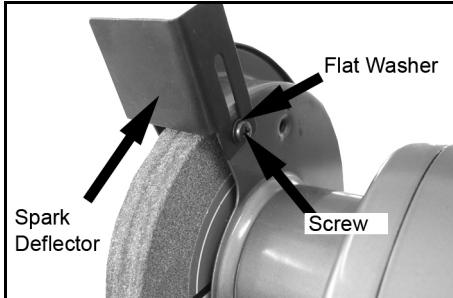
1. Fix the tool rest to the bench grinder with the screw and hand knob as shown.
  - The tool rest are adjustable and should be positioned 1.5 mm from the grinding wheels.
  - Ensure that the tool rest is firmly fixed and horizontal.



## INSTALLING THE SPARK DEFLECTOR

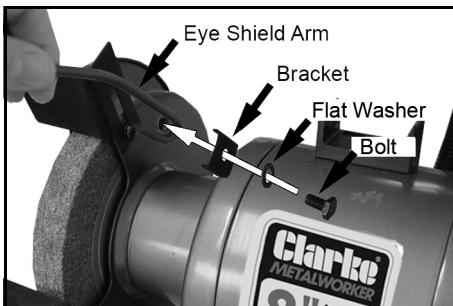
Fit the spark deflector to the grinding wheel guard using the screws provided.

- Adjust the spark deflector frequently to compensate for wear of the wheel, keep the distance between the spark deflector and wheel as small as possible and never more than 2mm.



## INSTALLING THE EYE SHIELDS

1. Attach the left eye shield arm to the bench grinder using the bracket, flat washer and bolt supplied.

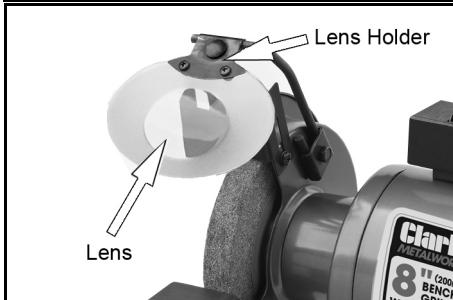


2. Fit the lens to the lens holder as shown.

**NOTE:** One of the lenses has a magnifying window this should be positioned over the grinding wheel.

3. Repeat for right side eye shield.

- Adjust the eye shields to an appropriate distance from the tool rests avoiding interference during operation.



# OPERATION



**CAUTION:** KEEP ALL BYSTANDERS A SAFE DISTANCE AWAY FROM THE TOOL AND NOT IN DIRECT LINE, FRONT OR BACK OF THE GRINDER.

**CAUTION:** ALWAYS WEAR SAFETY GLASSES

**NOTE:** Check that there is a 1.5 mm clearance between the tool rest and the surface of the grinding wheel. Adjust as necessary.

**NOTE:** Check the gap between the spark deflector and the surface of the grinding wheel. This should also be a maximum of 2 mm. Adjust as necessary.

**NOTE:** Check that the eyeshields have been secured in the correct position and that the grinding wheel lock nuts are tight.

1. Stand to the side of the bench grinder and switch it on using the on/off switch.
  - Let the grinding wheel reach full speed before grinding.
  - The wheel rotates in the same direction as the arrow stamped in the side of the wheel guard.
2. Hold the work piece firmly against the tool rest. Hold very small pieces with pliers or other suitable clamps.
3. Feed the work piece smoothly and evenly against the grinding wheel.
4. Always keep the work piece moving across the face of the wheel. Grinding against the same part of the wheel will cause uneven wear of the wheel face.
  - Grind only on the face of the grinding wheel and never the side of it.

**NOTE:** Prolonged grinding will cause most tools to become hot. Use care when handling hot tools.

5. Switch the bench grinder off using the on/off switch when you have finished.

## USING THE BUILT IN LIGHT

The built in light will come on automatically whenever the bench grinder is switched on.

The arm can bend to set the light in a suitable position.

## SHARPENING TIPS

### SCISSORS

If possible, take the scissors apart to make the sharpening operation easier and safer. Remove material only from the outside surface and work from the handle end of the blade towards the tip.

### KNIVES

Remove metal equally from both faces, working from the handle end of the blade towards the tip.

## MAINTENANCE

**WARNING: DISCONNECT THE GRINDER FROM THE MAINS SUPPLY BEFORE FITTING REPLACEMENT WHEELS, CLEANING OR ADJUSTMENT.**

Keep the machine clean by wiping off dust with a clean cloth, and occasionally blowing the grinder through with compressed air. Always wear protective goggles when blowing through with compressed air.

The grinding wheel may need trueing or dressing occasionally. Only dress the wheel with a proper dressing tool whilst wearing safety goggles or glasses. If in doubt seek expert advice.

### DRESSING THE WHEEL

When the abrasive wheel starts to become clogged with debris, use the dresser tool supplied to clean (dress) it.

1. Start the bench grinder running.
2. Place the dresser tool on the tool rest with the dresser wheels facing the grinding wheel.
3. Slide the dresser tool forward until contact is made with the abrasive wheel and maintain a light pressure to clean the debris from the abrasive wheel.
4. After dressing, adjust the tool rest and spark deflector as necessary.

## REPLACING THE WHEELS

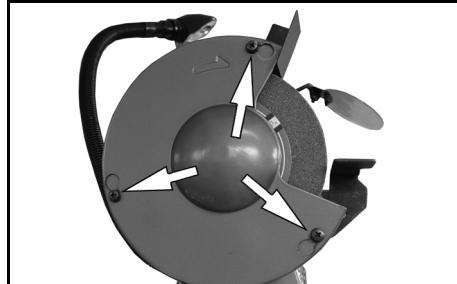


**WARNING: DO NOT USE DAMAGED WHEELS.**

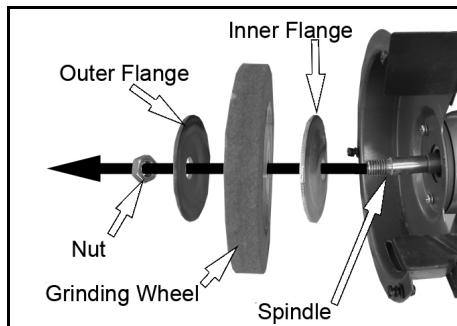
**WARNING: SWITCH THE GRINDER OFF AND DISCONNECT THE POWER SUPPLY BEFORE CHANGING THE WHEELS**

1. Loosen the screws shown and rotate and remove the wheel cover.
2. Hold the opposite wheel by hand, and remove the nut and outer flange.

**NOTE:** The left hand grinding wheel locking nut has a left handed thread.



3. Slide off the old wheel and replace with a new one.
  - Use only wheels recommended by the manufacturer which have a marked speed equal to or greater than the speed marked on the nameplate of the bench grinder.
  - The disc should have maximum dimensions of 200 mm diameter, 20 mm thick with a bore size of 15.88 mm.
  - Inspect grinding wheel for cracks, chips or any other damage, damaged abrasive products must be destroyed and discarded.
4. Replace the outer flange.
  - Make sure both wheel flanges are placed with the concave sides towards the wheel.
5. Replace the nut securely.
  - Do not overtighten as this may damage the grinding wheel.
6. Re-assemble the guards fully prior to carrying out testing.
  - Each time after mounting, the wheel should be test run for a reasonable time (approximately 1 minute).

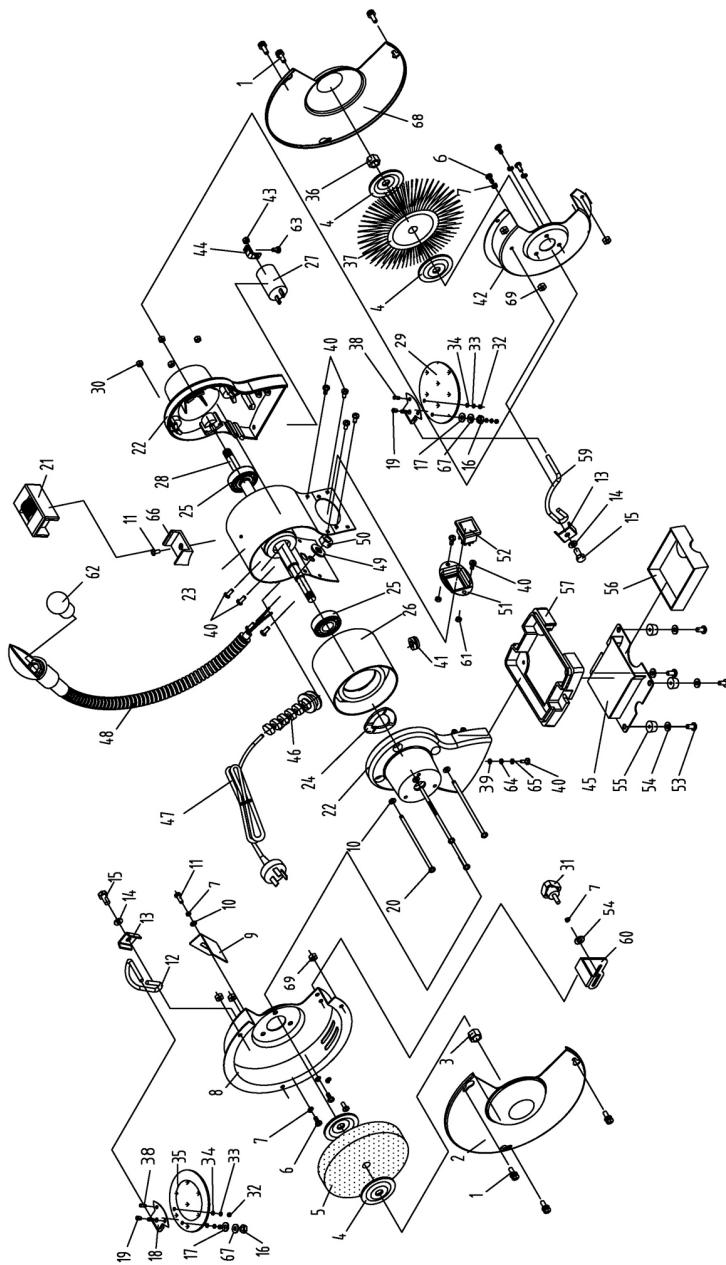


## CHANGING THE LIGHT BULB

Remove the bulb by twisting it anticlockwise.

Replace with an identical bulb (12V, 10W, ES10 fitting) available from the Clarke Parts Department.

# PARTS DIAGRAM



## PARTS LIST

1	Philips Screw Assembly	AWCBG8370LW01	37	Wire wheel	AWCBG8370LW37
2	Left Guard Cover	AWCBG8370LW02	38	Philips Screw	AWCBG8370LW38
3	I type Hex Nut	AWCBG8370LW03	39	Toothed Locking Washer	AWCBG8370LW39
4	Wheel Flange	AWCBG8370LW04	40	Philips Screw	AWCBG8370LW40
5	Wheel(36#)	AWCBG8370LW05	41	Cord bushing	AWCBG8370LW41
6	Philips Screw	AWCBG8370LW06	42	Right Guard Inner Cover	AWCBG8370LW42
7	Standard Washer	AWCBG8370LW07	43	I type Hex Nut	AWCBG8370LW43
8	Left Guard inner Cover	AWCBG8370LW08	44	Capacitor Stand	AWCBG8370LW44
9	Left Spark Deflector	AWCBG8370LW09	45	Base Plate	AWCBG8370LW45
10	Flat Washer	AWCBG8370LW10	46	Cord bushing	AWCBG8370LW46
11	Philips Screw	AWCBG8370LW11	47	Cord & Plug	AWCBG8370LW47
12	Left Eyeshield mount rod	AWCBG8370LW12	48	Lamp Assembly	AWCBG8370LW48
13	Bracket	AWCBG8370LW13	49	Standard Washer	AWCBG8370LW49
14	Flat Washer	AWCBG8370LW14	50	Nut	AWCBG8370LW50
15	Hex Bolt	AWCBG8370LW15	51	Switch Plate	AWCBG8370LW51
16	I type Hex Nut	AWCBG8370LW16	52	Switch	AWCBG8370LW52
17	Flat Washer	AWCBG8370LW17	53	Philips Screw	AWCBG8370LW53
18	Eyeshield press plate	AWCBG8370LW18	54	Big Flat washer	AWCBG8370LW54
19	Dome Screw	AWCBG8370LW19	55	Rubber foot	AWCBG8370LW55
20	Philips Screw	AWCBG8370LW20	56	Water tray	AWCBG8370LW56
21	Dressing tool	AWCBG8370LW21	57	Base	AWCBG8370LW57
22	End cap	AWCBG8370LW22	59	Right Eyeshield mount rod	AWCBG8370LW59
23	Motor housing	AWCBG8370LW23	60	Left work rest	AWCBG8370LW60
24	Wavy washer	AWCBG8370LW24	61	Hex nut	AWCBG8370LW61
25	Ball bearing	AWCBG8370LW25	62	Bulb	AWCBG8370LW62
26	Stator	AWCBG8370LW26	63	Philips Screw Assembly	AWCBG8370LW63
27	Capacitor	AWCBG8370LW27	64	Flat washer	AWCBG8370LW64
28	Rotor	AWCBG8370LW28	65	Standard Washer	AWCBG8370LW65
29	Eyeshield	AWCBG8370LW29	66	Dressing tool base	AWCBG8370LW66
30	Hex nut	AWCBG8370LW30	67	Standard Washer	AWCBG8370LW67
31	Work Rest Lock knob	AWCBG8370LW31	68	Right Guard Cover	AWCBG8370LW68
32	I type Hex Nut	AWCBG8370LW32	69	Nut	AWCBG8370LW69
33	Standard Washer	AWCBG8370LW33			
34	Flat Washer	AWCBG8370LW34			
35	Magnified eyeshield	AWCBG8370LW35			
36	Nut	AWCBG8370LW36			

# DECLARATION OF CONFORMITY



**Clarke®**  
**INTERNATIONAL**

Hemnall Street, Epping, Essex CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

- 2004/108/EC Electromagnetic Compatibility Directive.
- 2006/42/EC Machinery Directive.
- 2006/95/EC Low Voltage Equipment Directive.
- 2002/95/EC Restriction of Hazardous substances.

The following standards have been applied to the product(s):

EN 61029-1:2009+A11, EN 61029-2-4:2003+A1.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2011

**Product Description:** 8" Bench Grinder with Light and 8" Bench Grinder with Light and Wire Wheel  
**Model number(s):** CBG8370L, CBG8370LW  
**Serial / batch Number:** N/A  
**Date of Issue:** 04/01/2012

Signed:

J.A. Clarke  
Director

A SELECTION FROM THE VAST RANGE OF

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